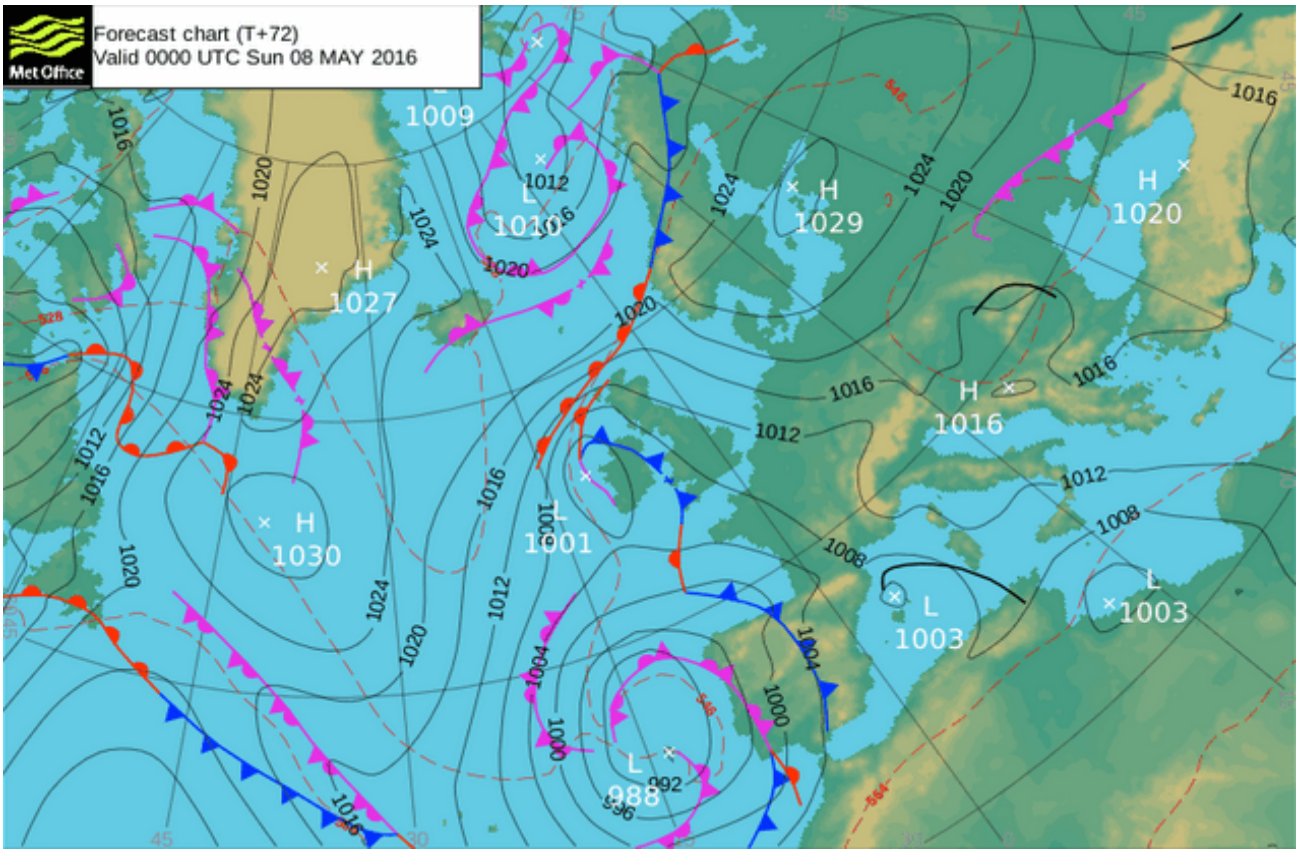
Becoming warmer this weekend

Description

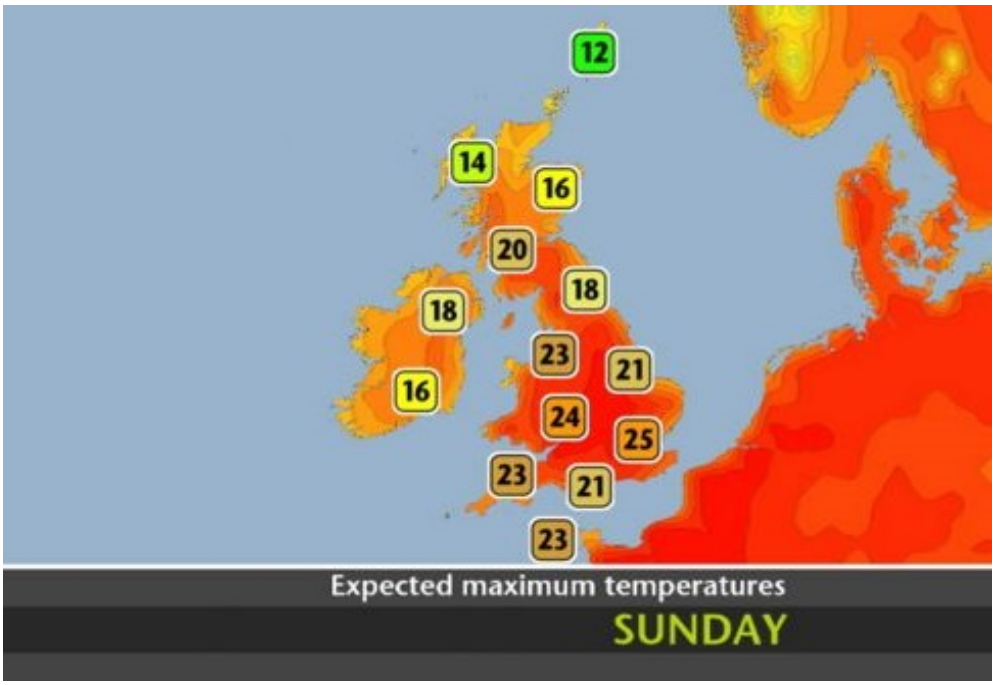
After a chilly end to April with snow and frosts, May has got off to a warmer start, and temperatures are forecast to climb further through the weekend with further sunshine.

The rise in temperatures is a result of a change in where the air reaching the UK is coming from. Last week cold arctic air brought the wintry conditions. By this coming weekend an area of low pressure means a southeasterly flow will bring in warm air from the near continent.



Pressure chart for Sunday morning

Temperatures will rise to widely exceed 20 Celsius on Sunday, and we could see highs of 25 or 26 C. Whilst these temperatures are much higher than the UK average maximum temperature for May of 14.7 C, they are still several degrees shy off the UK's May record of 32.8 C, reached in 1922 and 1944.



Forecast maximum temperatures for Sunday

Some thundery showers are likely on Saturday, particularly over western England and Wales, and rain is likely for parts of Scotland and Northern Ireland. Otherwise this weekend is looking mainly dry with plenty of warm sunshine.

There's a slight catch to the warmer, sunny weather. Tree pollen levels are forecast to reach moderate or high in many parts of the UK through the next few days.

Also, the combination of southeasterly winds and settled conditions across the UK will result in a reduction of air quality across some parts of the country into the weekend. Most people will not be affected by short term peaks in air pollution. However, some individuals, particularly vulnerable groups such as those with existing heart or lung conditions, may experience increased symptoms. You can see the latest air quality forecast on the uk-air website.

It is important that everyone ensures they enjoy the summery weather safely. Dr Jana Witt, Cancer Research UK's health information officer, said: "Enjoying the sun safely and avoiding sunburn can reduce your risk of malignant melanoma, the most serious form of skin cancer. The best way to protect skin when the sun is strong is to spend time in the shade between 11am and 3pm, and to cover up with clothing including t-shirt, hat and sunglasses." You can use our UV forecast pages to keep up to date with what is expected for your area.

Keep up to date with the latest forecast information on our forecast pages, Facebook and Twitter sites and via our Weather App.

Date Created
May 2016

Very warm with some showers for Ten Tors

Description

Thousands of young people will head to Dartmoor to take on the Ten Tors Challenge, which starts at 7am on Saturday. There are three different course lengths, of 35, 45 and 55 miles depending on age and ability with 400 teams of six taking part.

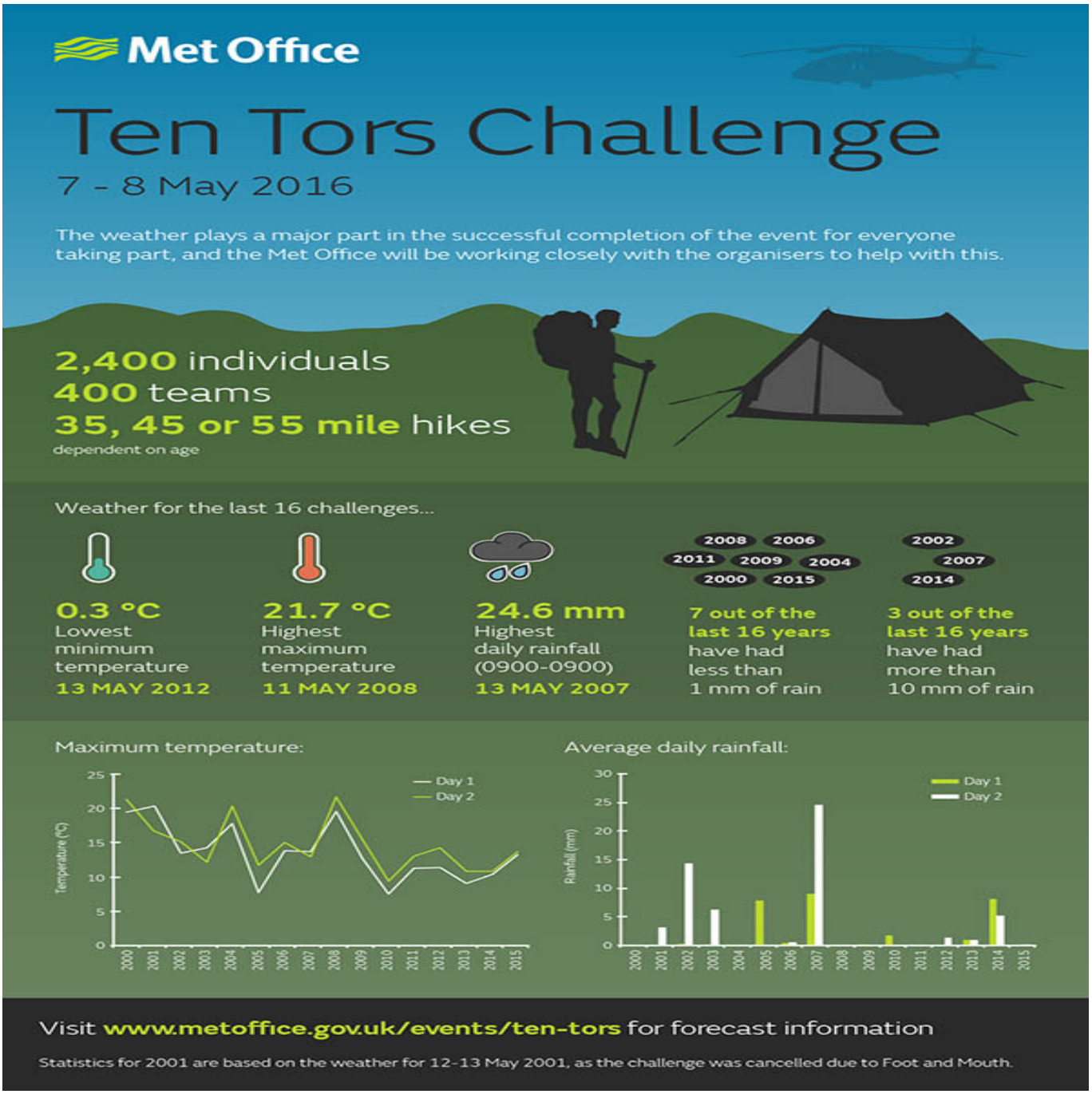
The weather plays a major role in the successful completion of the event and therefore the Met Office provides direct support to the organisers with weather forecasts from onsite meteorologists based in the event's Operations Room.

Met Office Advisor Mark Bevan said, "The weather is expected to be dry and bright for the most part, although a few heavy showers may occur on Saturday and early Sunday, with a risk of thunder. With sunny periods, the best of these on Sunday, temperatures during the day could reach 18 or 19C, giving warm conditions for the teams. However, temperatures will fall to around 8 C overnight giving a fresh feel to the early part of the day."

The event is organised by the Army and Lieutenant Colonel Nigel Taylor said "We measure weather conditions on the Moor at least every three hours and together with the forecast from the Met office, we are able to plan accordingly."

"Our plan is already in operation, and the everyone taking part will be well briefed on keeping hydrated, and making sure they use plenty of sun screen. We have deployed extra water to all the manned Tors."

The weather has had some significant impacts in previous years. In 1998, high temperatures meant there was a severe risk of dehydration for the participants. However, two years before that, there were severely low temperatures and Dartmoor National Park was struck by a sleet and snow storm which led to the military having to rescue some of the young people.


Met Office
Ten Tors Challenge
7 - 8 May 2016
The weather plays a major part in the successful completion of the event for everyone taking part, and the Met Office will be working closely with the organisers to help with this.
2,400 individuals
400 teams
35, 45 or 55 mile hikes
dependent on age
Weather for the last 16 challenges...
0.3 °C
Lowest minimum temperature
13 MAY 2012
21.7 °C
Highest maximum temperature
11 MAY 2008
24.6 mm
Highest daily rainfall (0900-0900)
13 MAY 2007
2008 2006 2011 2009 2004 2000 2015
7 out of the last 16 years have had less than 1 mm of rain
2002 2007 2014
3 out of the last 16 years have had more than 10 mm of rain
Maximum temperature:
Temperature (°C)
Day 1
Day 2
Average daily rainfall:
Rainfall (mm)
Day 1
Day 2
Visit www.metoffice.gov.uk/events/ten-tors for forecast information
Statistics for 2001 are based on the weather for 12-13 May 2001, as the challenge was cancelled due to Foot and Mouth.

Good luck to everyone taking part and information for other events around the UK can be found on our events page.

You can keep up to date with the latest forecast information for your area on our forecast pages, Facebook and Twitter sites and via our Weather App.

Date Created
May 2016

Met Office predicts slightly above-average Atlantic hurricane season

Description

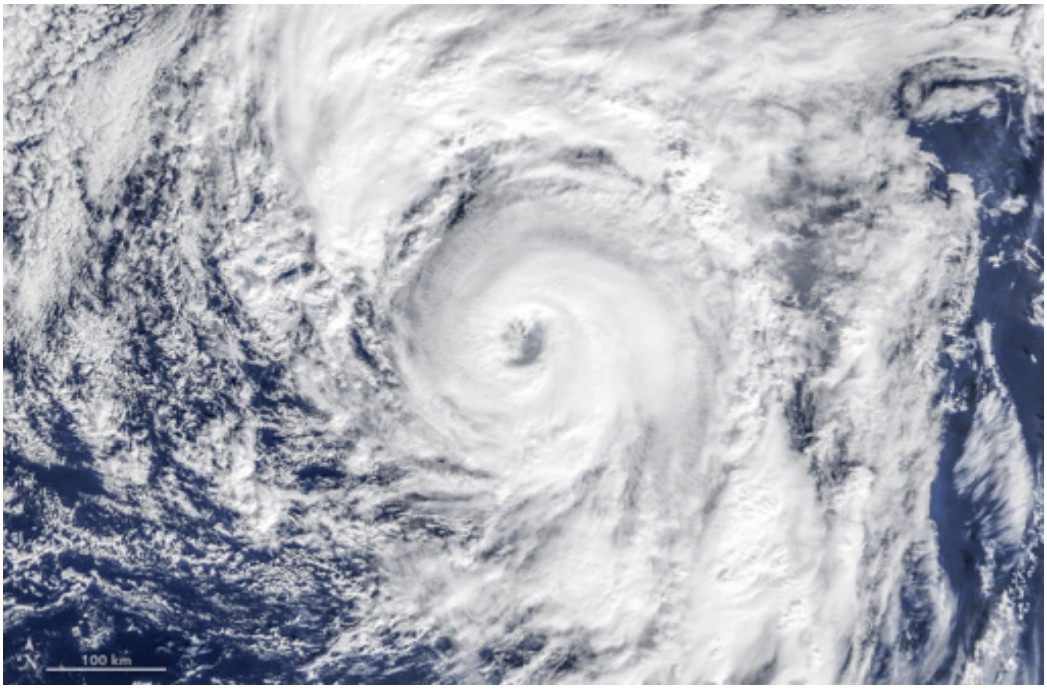
The Met Office is predicting that the most likely number of tropical storms to form in the Atlantic between June and November will be 14 according to its long-range Atlantic tropical storm forecast for 2016 released today.

There is a 70% chance that the number of storms will be in the range 10 to 18. This represents slightly above-normal activity relative to the 1980–2010 average of 12 tropical storms.

The forecast number of hurricanes — tropical storms with winds of at least 74 mph — is 8 (70% range 6 to 10); the average number of hurricanes is 6.

The forecast Accumulated Cyclone Energy (ACE) index — a measure of the strength and duration of storms over the season — is 125 (70% range 77 to 173); the average ACE index is 104.

The North Atlantic hurricane season typically runs from June to November, but has already seen one hurricane (Alex) in January 2016. Alex was the first Atlantic hurricane to form in the month of January since 1938.



Hurricane Alex at 1300 UTC on 14 January 2016 in the eastern Atlantic. Credit: NASA Earth Observatory

The evolution of the El Niño Southern Oscillation (ENSO) over the next few months will play a large part in the North Atlantic hurricane season.

The last year has seen one of the strongest El Niño events on record in the tropical Eastern Pacific, but this has now substantially weakened.

Prediction systems from forecast centres around the world suggest that this event will soon terminate, with many transitioning to La Niña conditions by the peak of the hurricane season.

Joanne Camp, climate scientist at the Met Office, said: “El Niño conditions in the Pacific can hinder the development of tropical storms in the Atlantic whereas La Niña conditions can enhance tropical storm activity, so how these conditions develop will be important for the storm season ahead.”

The tropical storm forecast is produced using the Met Office’s seasonal forecast system, GloSea5.

For regular updates on tropical cyclones worldwide follow @metofficestorms on Twitter.

Date Created
May 2016

Is this summer going to be record breaking?

Description

There are headlines in the media today suggesting the UK is in for a “hotter than usual summer”. This prediction seems to have been based on the latest Met Office three month outlook for contingency planners.

As we’ve discussed previously, the outlook is not a normal weather forecast. It’s an experimental and complex outlook based on probabilities and is designed specifically for those who plan ahead for various contingencies based on possible likelihoods. It assesses the likelihood of five different scenarios for both temperature and rainfall for the whole of the UK for the next three months, based on the more probable prevailing weather patterns.

It’s a bit like the science-equivalent of factoring the odds on a horse race and like any horse race; it’s always possible the favourite won’t win.

This is why the outlook has to be used in the right context. So it’s useful for contingency planners, but not that useful when you want to know, for example, which summer weekend looks good for an outdoor event.

What does the current outlook say?

The current forecast does not cover all the summer months (June, July, August), it is for May, June and July, and for this period long-range prediction systems only weakly favour certain types of weather patterns above others. Therefore the outlook suggests the chances of above – or below – average rainfall are approximately similar, while there is only a slight increased risk of warmer than average conditions.

However, there are still substantial probabilities that either average or cool/dry conditions may occur. This is because there are many competing factors that determine what our weather will be like in the coming months.

For May-June-July as a whole, the Met Office seasonal prediction system, along with systems from other forecast centres, show an increased probability of lower-than-average pressure to the north of the UK and higher-than-average to the south. Despite this, and the seemingly good agreement between seasonal predictions systems, the signal is only small, so the chances of above- and below-average temperatures are approximately similar. There is also a suggestion of an increased chance of wetter-than-average conditions, but this shift is small and we expect the likelihood of weather-related risks to be close to normal during this period.

If you want to plan up and coming activities head to our forecasts pages for a detailed 7 day forecast or a 30 day look ahead at weather trends.

Date Created

May 2016

Heavy rainfall for Sri Lanka and India

Description

This depression has produced very heavy rainfall across much of Sri Lanka and into the far south of India over the weekend. The capital of Sri Lanka, Colombo, reported 305mm of rain on Sunday (May average rainfall is 371mm), leading to some flooding impacts.

The tropical depression is expected to move northwards this week, probably close to the eastern India coastline, bringing unusually early heavy rainfall up the eastern coast of India. As the system tracks north, up to 400mm of rain is possible in a 24-hour period. For reference, Chennai has an average May rainfall of only around 25mm, but residents could see over 10 times this in a 24-hour period for a time this week.

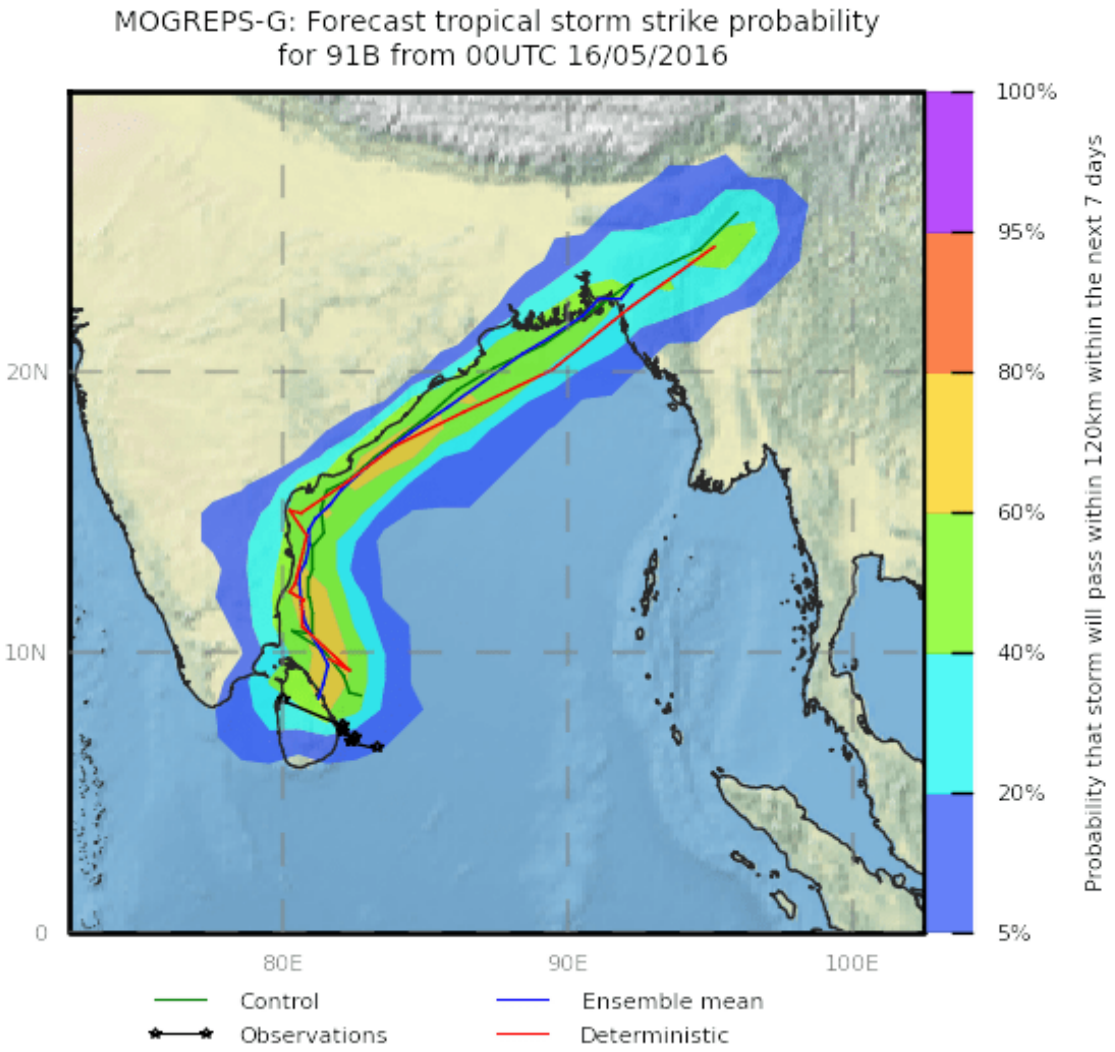


Chart showing the forecast track of the tropical depression, taking it northwards, close to the eastern India coastline

In the wake of this tropical system, a very moist west-to-southwest flow will persist across Sri Lanka and the far south of India; most likely bringing further heavy rainfall across populated areas of Sri Lanka. There is a risk of a further 600mm, on top of the weekend's rainfall, in Colombo which could lead to serious flooding.

There is a risk that this tropical depression could strengthen to produce tropical storm-force winds as it tracks north this week, but the main impacts are likely to come from the very heavy rainfall.

Tropical depressions and storms in the North Indian Ocean in May are not particularly unusual. They usually occur in the pre-monsoon period (April to June) and post-monsoon period (October to December). However, this tropical depression is likely to produce greater impacts than most due to its formation close to Sri Lanka and projected track along the length of the eastern coast of India.

You can keep up to date on this and other stroms around the world on our Storm Tracker page. For regular updates on tropical cyclones worldwide follow @metofficestorms on Twitter.

If you are looking for a forecast closer to home you can keep up to date with the latest information on

our forecast pages, Facebook and Twitter sites and via our Weather App.

Date Created
May 2016

Global weather model looks to the skies for improved accuracy

Description

The day-to-day business of many scientists in the Met Office is focussed on continually improving our Unified Model (UM) and advancing our treatment of observations that are used to initialise the UM to maintain our world-leading forecast accuracy.

Tom Blackmore, a Met Office senior scientist, said: “The Unified Model provides weather and climate forecasts across timescales ranging from hours to decades for the public and government, and a range of commercial customers. We constantly strive for better forecast performance and our work across a wide range of scientific and technical disciplines continually delivers many incremental improvements in skill which collectively add up to significant gains to our forecasting accuracy.

“We have often been asked how we bring new science into our operational forecasting model, which runs every day of the year to provide forecasts to our customers, without interruption. We do this by making changes – based on our scientific and technical knowledge, novel research and collaboration – to a copy of the model and rigorously test these changes.”

Several times a year the successful individual changes are bought together into a ‘package’ and all tested together in a copy of the model that is run in parallel to the operational model. Met Office operational meteorologists and scientists work together to ensure that all the changes in this Parallel Suite work together and provide improvements over the current operational version of the model, from global to very small scales. Once this has been carefully assessed, the Parallel Suite is switched to replace the operational model and thereafter becomes the version of the model that produces our world-leading forecasts.

The latest upgrade to our model was made this spring when our 37th Parallel Suite was switched to operational use. This was the first science upgrade to go operational on our new supercomputer and is the culmination of several years work from scientists from different disciplines across the Met Office.

In addition to ingesting information from six new satellites, the Unified Model now incorporates humidity measurements from aircraft.

The package of changes involved better use of the observations we receive from existing weather satellites, the introduction of observations from six new satellites and measurements of humidity from aircraft. One of the largest performance gains came from a better way of automatically and adaptively correcting errors in satellite observations. This allows us to use more, higher-quality, satellite observations in the model – providing a more accurate starting point for each forecast.

Careful monitoring of the Parallel Suite containing these changes, over months of testing and comparisons with our operational model during 2015 and early 2016, showed significant improvements in forecast skill. It became clear this amounted to one of the largest performance gains in our global model in the past decade.

Kirsty McBeath, Private Secretary to the Met Office Chief Scientist, said: “Now that Parallel Suite 37 is operational, our scientists are working on improvements to be considered for the next Parallel Suite, due to become operational later in 2016.

“This process of constant improvement and innovation as usual helps to ensure that the Met Office is consistently one of the top two operational weather forecasting services in the world, and we continually strive to ensure that our forecasts for the public, the government and our customers all over the world are as accurate and useful as possible.”

Date Created
May 2016

Is the weather going to be record breaking?

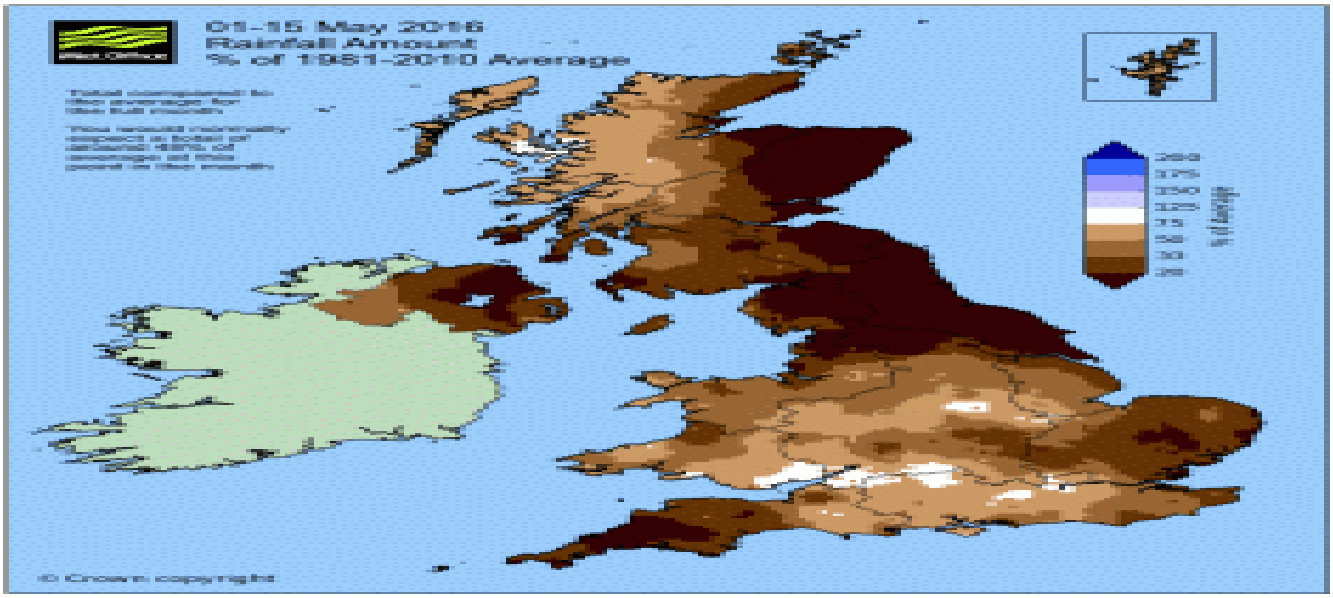
Description

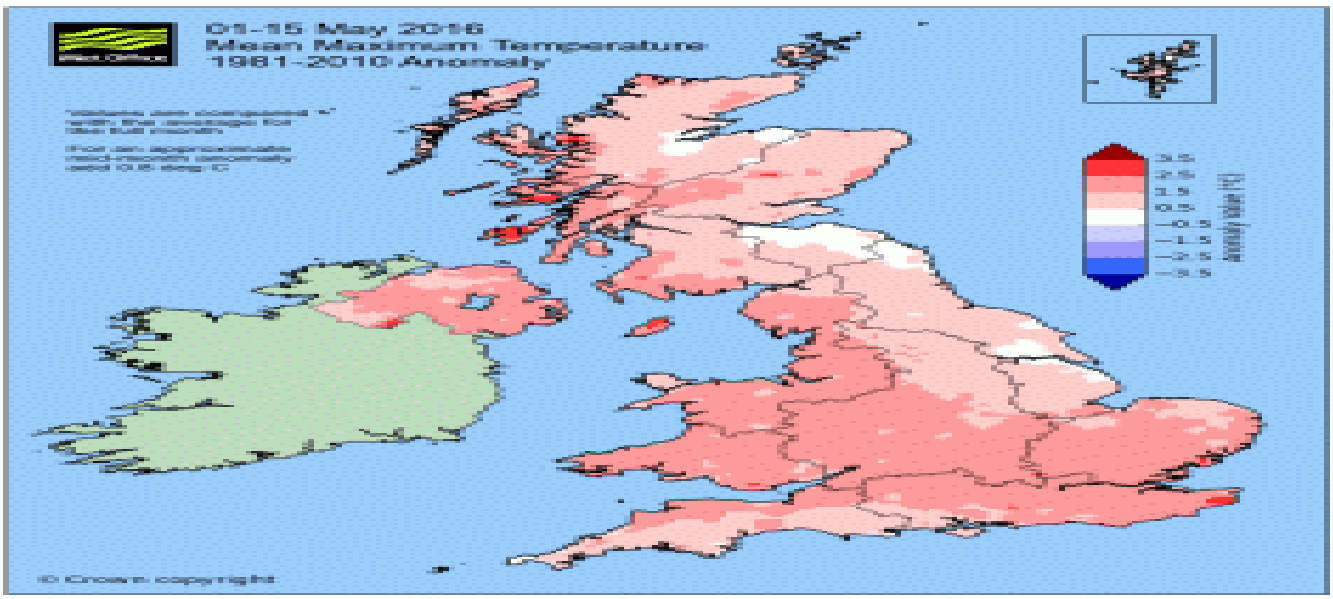
There has been some suggestion that this May could be the hottest ever recorded in the UK. However, unfortunately, it really is still too early to be sure about the final figures. The mid month UK statistics (1-15 May 2016) show, that while there has been some warm days and nice spring like weather so far this month, it hasn't been entirely settled.

Some high temperatures have been recorded with southern and western areas seeing maximum temperatures around 2 °C above average with Plockton (W Scotland) recording 27.7°C and 27°C being reached around London and in Cambridge.

	minimum temperature		**mean temperature**		**sunshine hours**		**precipitation**	
1-15 May 2016	**Act**	**Anom**	**Act**	**Anom**	**Act**	**Anom**	**Act**	**Anom**
	degC	**degC**	**degC**	**degC**	**hours**	**%**	**mm**	**%**
UK	6.3	0.3	11.3	0.9	116.9	63	26.0	37
England	6.9	0.2	12.2	0.9	118.0	62	20.6	35
Wales	7.4	1.0	12.1	1.5	104.1	56	42.6	50
Scotland	4.9	0.2	9.5	0.7	118.6	67	32.0	38
N Ireland	6.3	0.4	11.4	1.2	115.4	63	18.8	26

However, while some parts of the country have had less than half the rainfall expected at this point in the month, parts of the East Midlands and Western Scotland have already had most of their monthly average rainfall.





However Deputy Chief Meteorologist Dan Harris said; “The weather is looking rather changeable for the second half of the month, with a predominance of showers or longer spells of rain for most areas. Next week is expected to start off rather cool, and perhaps more settled for many areas than recently, however these settled conditions are unlikely to last and whilst a gradual upturn in temperatures is expected towards the end of the month it will most likely be accompanied by an increase in cloud and rain. Overall, conditions are likely to average out near to normal for this time of year”.

Summer 2016

There has also been some speculation in the media that we are in for a long hot record breaking summer! However currently the outlook suggests near-normal chances of warm and dry conditions. Jeff Knight, head of Climate Variability at the Met Office said; “Currently, there are no strong drivers of our weather patterns in the same way El Nino was this winter and spring. This results in fairly well-balanced chances of different kinds of weather this summer. ”

Around the Globe

Looking at the global picture, April was the seventh month in a row to have broken global temperature records. Figures just released by Nasa show the global land and sea temperature was 1.1C warmer in April than the average temperature for April during the period 1951-1980.

This is in line with the Met Office prediction, back in December, that 2016 will be the hottest year on record, following on from a record breaking 2015.

You can keep up to date with the latest forecast information for your area on our forecast pages, Facebook and Twitter sites and via our Weather App.

Date Created
May 2016

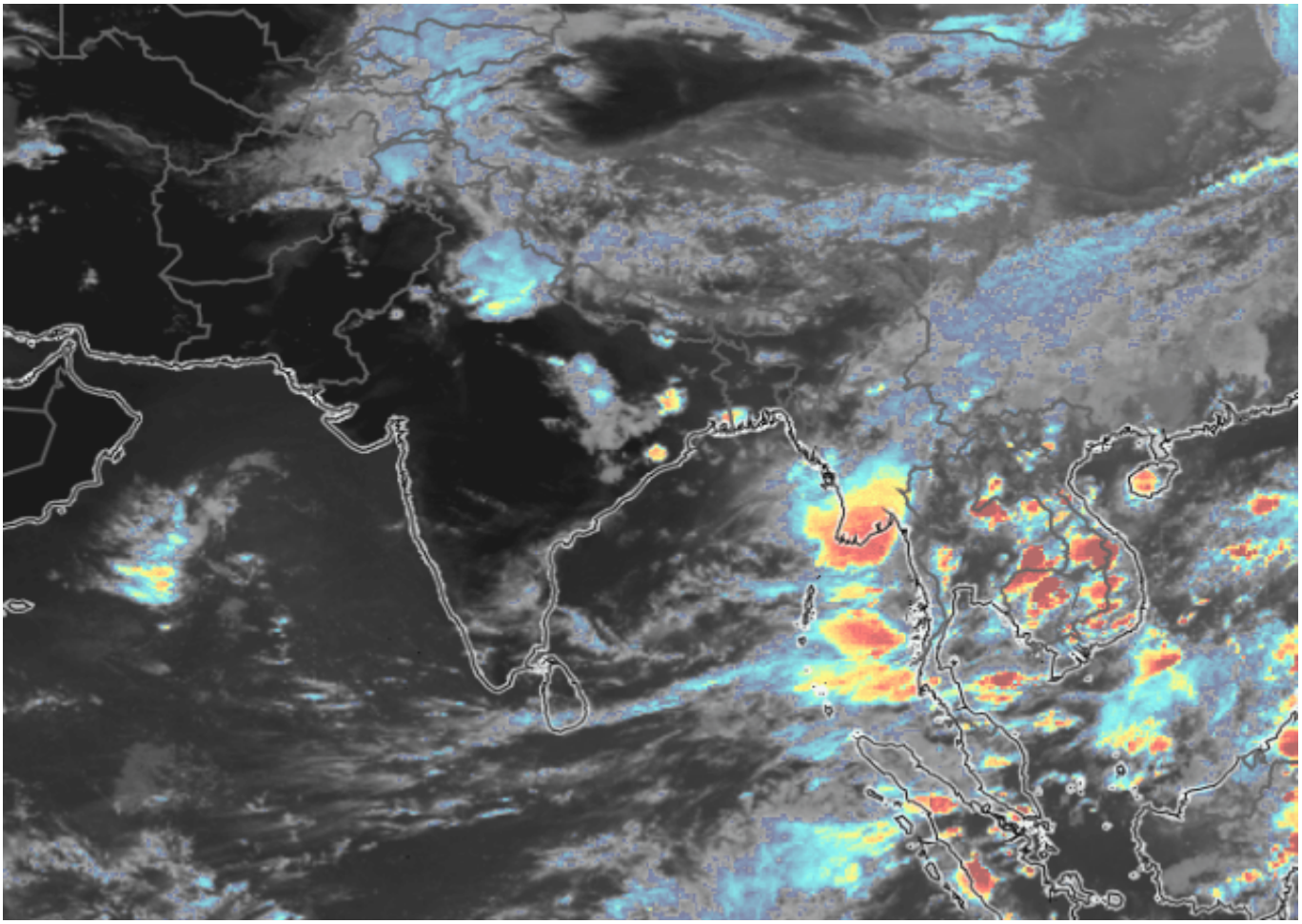
Pre-Monsoon in southern Asia

Description

Southern Asia has seen some extreme weather recently, with heavy rainfall and high temperatures. But how unusual is this?

In the last few days temperatures have often been above 50 C in northwest India, and the highest ever temperature record was broken with 51 C at Phalodi. Meanwhile Jacobabad in Pakistan has recorded four consecutive days of over 50 C since Thursday.

There was also a Tropical Cyclone (Roanu) progressing northeastwards along the east Indian coast across Bangladesh and Myanmar through the weekend. This has now dissipated over land but has drawn a lot of moisture up across the Bay of Bengal which is bringing enhanced rainfall on the east coast (northwest Thailand and south Myanmar in particular).



Infrared imagery showing southerm Asia at 1200 GMT Monday 23 May 2016. The colour enhanced areas show where the greatest activity is.

May is known as the Pre-Monsoon period in this part of the world. Isolated thunderstorms, strong sunshine and extreme heat across the Indian plains, are quite normal as the sun climbs higher in the sky. However, this year the heat has been exacerbated by dry soil conditions across much of northwest India and Pakistan following two relatively poor summer monsoon seasons. By June the moist, cloudy winds from the southwest will have set in across India and temperatures will fall, although with higher humidity it will continue to feel uncomfortable.

With relatively light upper and surface winds and high sea temperatures the environment in May is conducive to the development of Tropical Storms in both the Arabian Sea and the Bay of Bengal. By June, formation of Tropical Cyclones is unlikely due to increased wind shear, with strong westerly winds near the surface and easterly winds higher up.

You can keep up to date on storms around the world on our Storm Tracker page. For regular updates on tropical cyclones worldwide follow @metofficestorms on Twitter.

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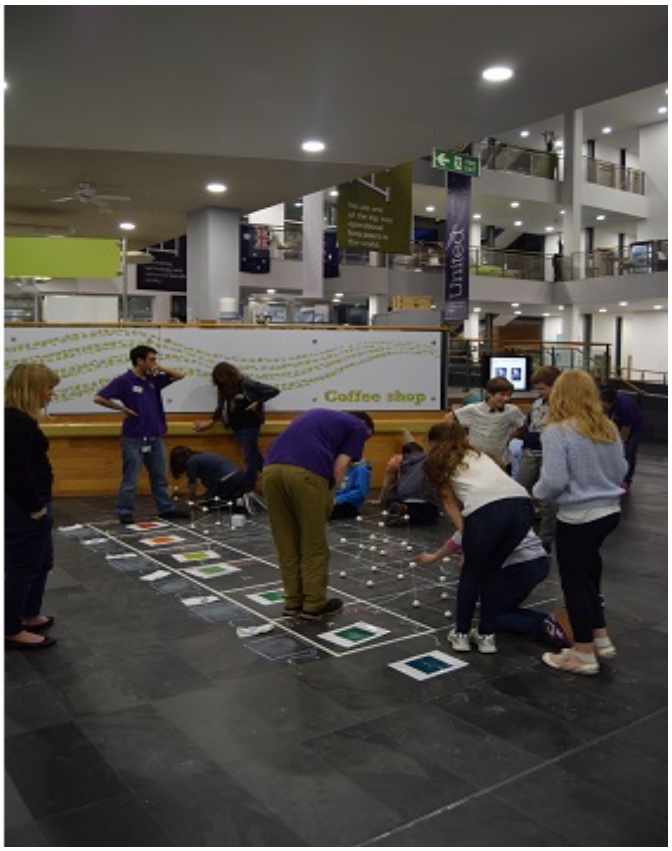
Date Created
May 2016

Science Camps in full swing

Description

Over 50 students, aged between 11-13, arrived at the Met Office keen to learn about weather and climate science, for the second of this year's Science Camps!

During the Science Camps students take part in demonstrations and hands-on activities, while camping overnight at Met Office headquarters in Exeter. The activities cover a huge variety of topics to help explain how we understand, measure and forecast both the weather and the climate.



Andy Brown, Director of Science at the Met Office said: "This year's Science Camps have been as exciting as ever. Hopefully the activities, such as creating clouds in bottles and learning about our specialised sheep chill forecast, will inspire the students to become interested in science and meteorology."

It seems as though this has well been the case, with one student saying, "I would love to work here when I am older – it was a great experience I will never forget", and another adding, "The helpers were great and the activities were endlessly fun! I would SO do it again."

The teachers also enjoyed the experience and one commented, “The MET Office is such a stimulating environment and the staff were so inspiring, every one of them showed a passion about their work that made all of the workshops engaging and fun.”

The camps take place over a number of weekends throughout the spring and summer terms, and are part of the Met Office STEM (Science, Technology, Engineering and Math’s) Outreach programme.

From 4-8 July organisations across the UK, including the Met Office, will be participating in Tech Week: Helping to inspire a new generation of young people about the digital world and change the way young people learn about technology and tech careers.

Date Created
May 2016

Unsettled weather for Europe and further afield

Description

A warm plume of air has extended north from Africa into continental Europe, and is the focus for some potentially severe thunderstorms this weekend. The risk will transfer east from France on Saturday to Germany and the Alps on Sunday then into eastern Europe for the start of next week. These storms will bring the risk of flash flooding, large hail and strong winds.

An area of low pressure and associated active frontal system will bring heavy, possibly thundery, rain to parts of France, Belgium and the Netherlands on Sunday and Monday. Up to two months worth of rain could fall in a few places. However, there is uncertainty in the details of where the heaviest rainfall will fall, but there is a risk of flooding across this part of Europe.

Tuesday and Wednesday also look unsettled with showers or longer spells of rain across much of continental Europe and temperatures below the average for late May / early June across much of western continental Europe.

As a result disruption to play is possible at the French Open in Paris from Saturday through to the middle of next week, with a risk of showers or thunderstorms close to Monaco on Sunday for the Grand Prix. There is even a low risk of a shower for the Champions League Final in Milan, although it should remain dry and very warm here.

Looking further afield and the National Hurricane Center in Miami has stated that there is a 90% chance of a Tropical or Sub-Tropical Storm forming just east of the Bahamas through the next few days. If this storm does form it will be named Bonnie and its likely track takes it northwest around the sub-tropical ridge towards the USA and into the Carolinas later in the weekend, and this could lead to some local flooding to this region.

Although the official hurricane season in the Atlantic does not start until June the first hurricane of the season, named Alex, unusually formed in January and tracked across part of the eastern Atlantic.

The Met Office recently released its seasonal forecast for the Atlantic hurricane season. After a relatively quiet season in 2015 the forecast calls for tropical cyclone activity slightly above normal levels in 2016.

Unsettled conditions are also expected across western parts of the Caribbean through the next 5 or 6 days. Showers and thunderstorms are expected to affect parts of the Bahamas, Cuba, Jamaica, Haiti and the Dominican Republic due to a plume of warm air becoming destabilised by cooler air aloft. There is a risk of local flash flooding in this region, with this risk likely to increase next week as the thunderstorm activity becomes more widespread across the region.

Meanwhile in the South China Sea a tropical disturbance is set to bring heavy rain and some floodingto parts of Guangdong province of China. The disturbance is unlikely to have time to become a tropical storm before it makes landfall west of Hong Kong.

Official warnings for the tropical cyclones in the North Atlantic are produced by the National Hurricane Center and for the western North Pacific by the Japan Meteorological Agency. The Met Office routinely supplies predictions of cyclone tracks from its global forecast model to regional meteorological centres worldwide, which are used along with guidance from other models in the production of forecasts and guidance. We also provide updates on current tropical storms via @metofficestorms on Twitter.

Date Created
May 2016

Will summer be a washout or a scorcher?

Description

Summer is a time when many look forward to enjoying the great outdoors, but all too often the British weather can, quite literally, dampen our spirits. The Met Office has just released its contingency planners' outlook covering the period for June, July and August. So what can we say based on this early look at what might be in store for the summer?

Currently, the chances of what type of weather we will experience appear fairly balanced. While the outlook suggests a moderate increase in the chances of higher-than-average temperatures, that can't be taken as indicating a strong likelihood of a hot summer. Indeed, the perception of good weather often relates to the seasonal rainfall. For example, even though the UK had a run of 'poor' summers between 2007 and 2012, half of these summers had temperatures above the long-term average. Looking forward to this summer, the chances of below- or above-average rainfall appear to be very similar.

It is worth remembering that the outlook is primarily aimed at giving government departments and agencies a forward view of potential weather hazards in the months ahead. As such, it is a risk assessment rather than a more traditional type of forecast of what the weather is going to be. Using evidence from global weather observations and computer forecast systems, we can estimate how the chances of different types of UK weather will be modified in the coming months. This summer, the outlook suggests that the likelihood of these weather types, and the chance of the weather having a serious impact on us, is close to what we normally expect. It is not saying there is no risk, but it indicates there are currently no reasons to think the usual level of risk is either increased or diminished.

Outlooks for last winter and spring contained significant increases in the chances of particular types of weather compared to normal. Specifically, they pointed to an increased tendency of mild, wet and windy weather in early winter followed by a transition to colder conditions in the late winter and spring. This was indeed the pattern of weather in this period: December turned out to be exceptionally mild and wet for the UK, whilst March and April were colder than the long-term average. So why were there signals favouring particular weather last winter and spring but not now as we approach summer?

The answer lies in influences from other parts of the global climate system. We know that weather in the UK can be modified by effects from far across the globe, and generally a number of these factors combine to produce a shift in the chances of getting particular weather. In winter and spring there were effects like the strong El Niño in the tropical Pacific Ocean, and the state of the stratosphere, both of which have reasonably clear-cut effects on weather in those seasons. Since then, however, we have seen El Niño decline, and whilst there is a growing likelihood that its counterpart La Niña will develop over the summer, it has only a weak link to the UK at this time of year. In fact, the various global phenomena that are now present or are expected to develop all appear to have relatively weak effects on UK weather at this time of year.

So will we get heatwaves or downpours? There is always a chance of either – or both – happening at times in summer, but this summer the chances of experiencing them are currently similar to normal. As

always, our forecasts from one day to one month ahead can be relied upon to provide the best guidance on what to expect whatever weather patterns emerge.

Date Created
May 2016